

**ABSTRACT OF THE DISCLOSURE**

5 A body is at least partially coated with one or more refractory layers of which at least one layer is of a fine grained  $\kappa$ - $\text{Al}_2\text{O}_3$ . Said  $\kappa$ - $\text{Al}_2\text{O}_3$  layer has equiaxed grains with an average grain size of  $<0.5 \mu\text{m}$ . The  $\text{Al}_2\text{O}_3$  layer also has at least one sublayer containing Al, Si and O. The fine grained  $\kappa$ - $\text{Al}_2\text{O}_3$  microstructure is obtained by periodically introducing a silicon halide, preferably  $\text{SiCl}_4$ , during the  $\text{Al}_2\text{O}_3$ -process.